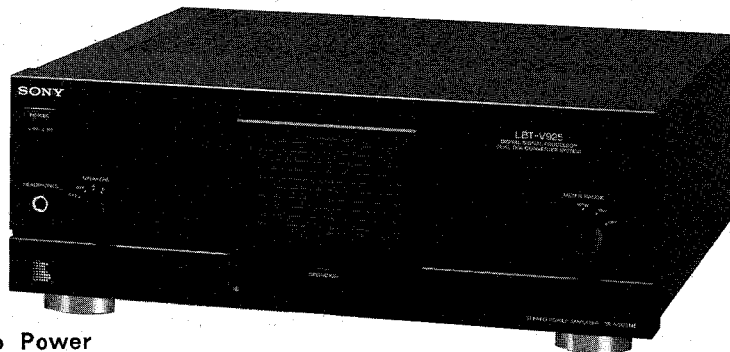


TA-V925NE

SERVICE MANUAL

AEP Model
UK Model



This set is the Stereo Power
amplifier section in
LBT-V925CD

SPECIFICATIONS

Power amplifier

Power output	85 W + 85 W at 5 % distortion
Power consumption	150 W
AC outlets	2 unswitched. 200 W max.
Dimensions	355 × 132 × 335 mm (w/h/d) (14 × 5 ¹ / ₅ × 13 ¹ / ₈ inches)
Weight	Approx. 6.7 kg (14 lb 13 oz)

General

Power requirements 240 V AC, 50 Hz

Design and specifications subject to change without notice.

STEREO POWER AMPLIFIER
SONY®

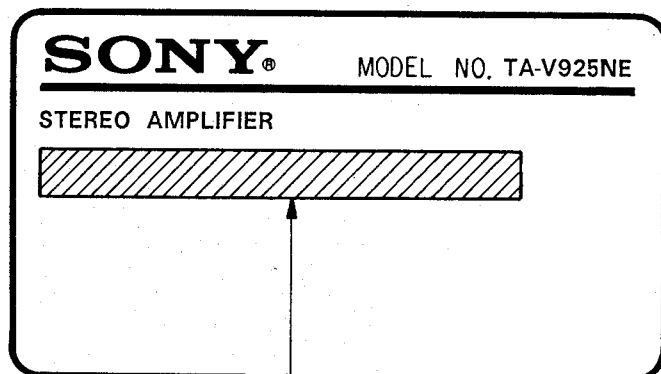


TABLE OF CONTENTS

Title	Description	Page
Specifications		1
Model Identification		2
1. GENERAL		
1-1. Function of Controls		3
2. DISASSEMBLY		4
3. ELECTRICAL ADJUSTMENTS		4
4. DIAGRAMS		
4-1. Circuit Boards Location		5
4-2. Semiconductors Lead Layout		6
4-3. Printed Wiring Boards		7
4-4. Schematic Diagram		11
5. EXPLODED VIEW		15
6. ELECTRICAL PARTS LIST		17



MODEL IDENTIFICATION

— Specification Label —



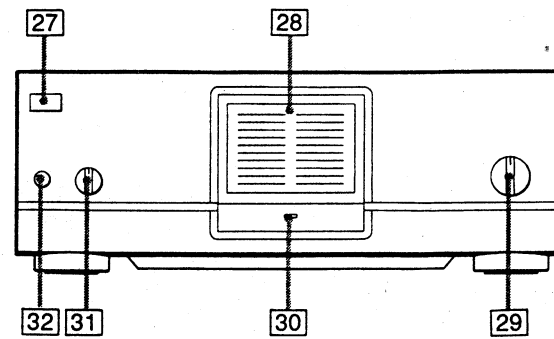
AEP, Italian Model : AC : 220V~50/60Hz 150W
 UK Model : AC : 240V~50/60Hz 150W

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1 GENERAL

Parts Identification



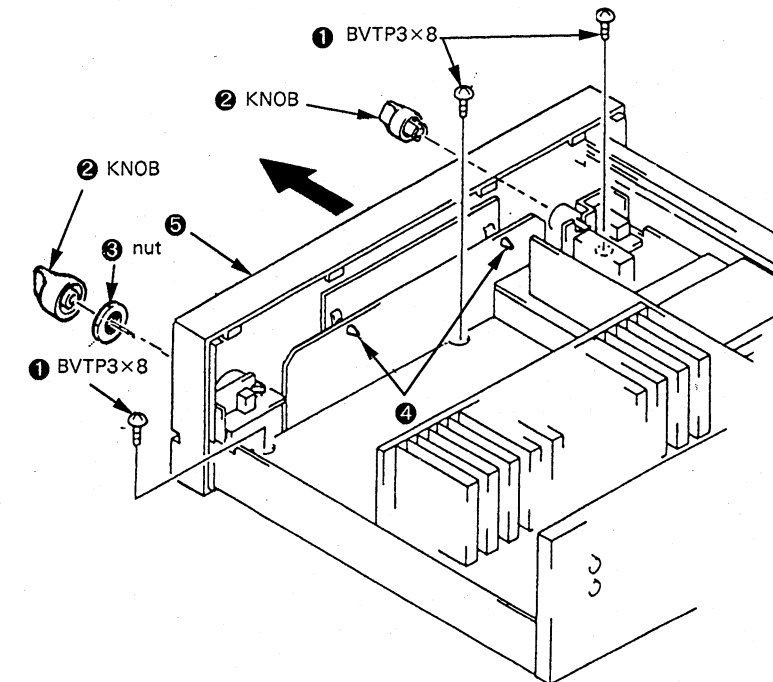
Power amplifier

- 27 POWER switch
- 28 PEAK POWER METER
- 29 METER RANGE selector
- 30 OPERATION indicator
- 31 SPEAKERS selector
- 32 HEADPHONES jack (stereo phone jack)

SECTION 2 DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

[FRONT PANEL]



SECTION 3 ELECTRICAL ADJUSTMENTS

[DC Bias Adjustment]

Perform this adjustment when replacing the transistors or ICs of the power amplifier.

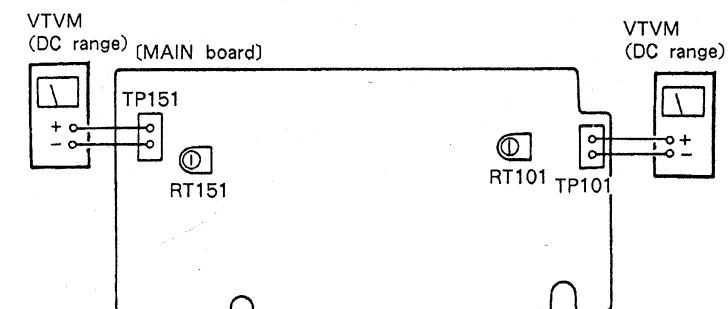
Setup :

- No signal (No load)
- Minimum volume

Procedure :

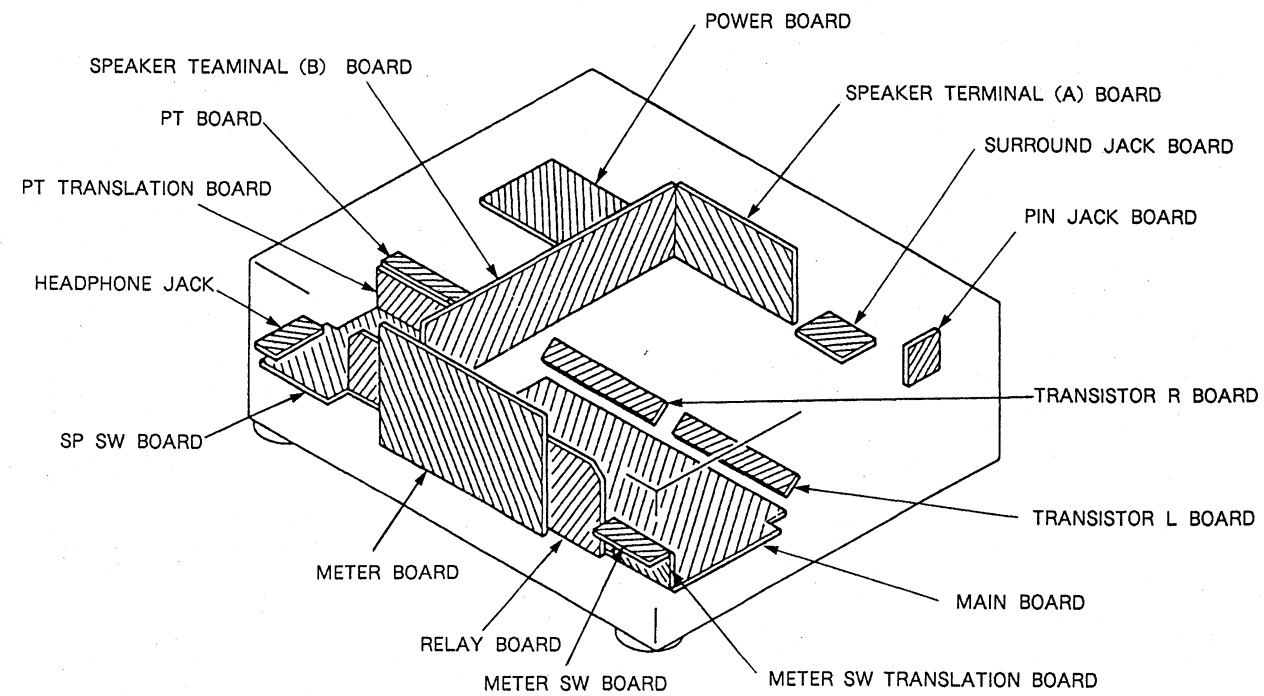
1. Connect DC volt meter to the TP.
2. Turn on the power and wait for 3 minutes, then adjust RT101 (L-CH) and RT151 (R-CH) so that the bias voltage becomes 7mV.

Adjustment Location :



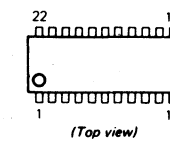
SECTION 4 DIAGRAMS

4-1. CIRCUIT BOARDS LOCATION



4-2. SEMICONDUCTORS LEAD LAYOUT

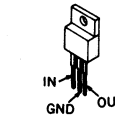
IR2E44



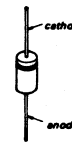
2SC1841-PA



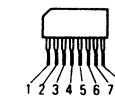
M5F7812



1SS1585
10E2N



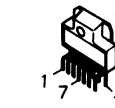
μ PC1237HA



30DL4-FC



μ PC1298V



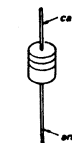
SLR-34UW5



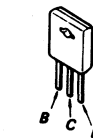
2SA1348
2SC3402
DTA114ES



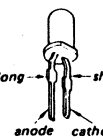
1SS120



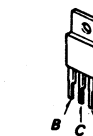
2SA1232
2SC3012



SEL2410E-C



2SD1585-K

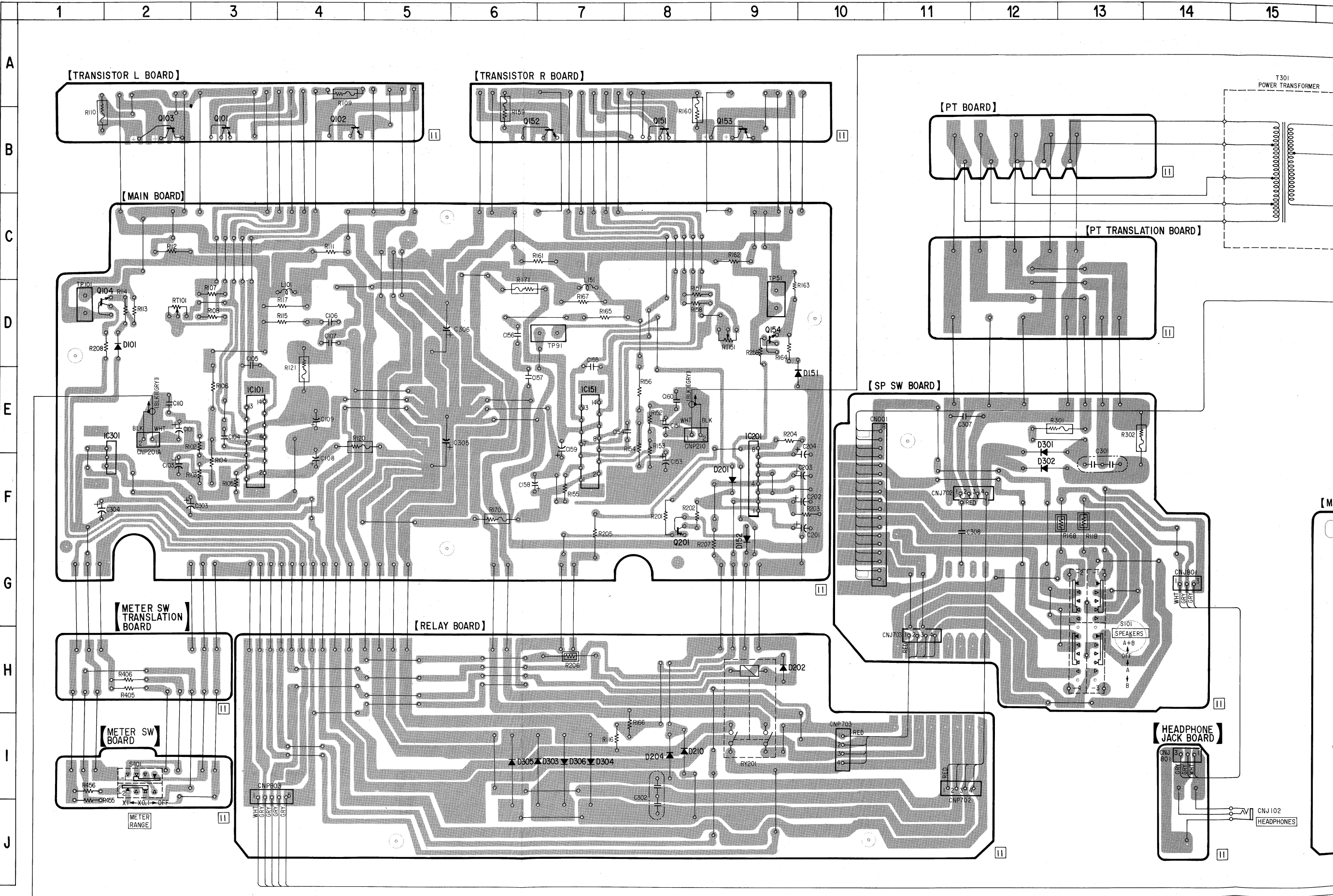


• SEMICONDUCTOR LOCATION

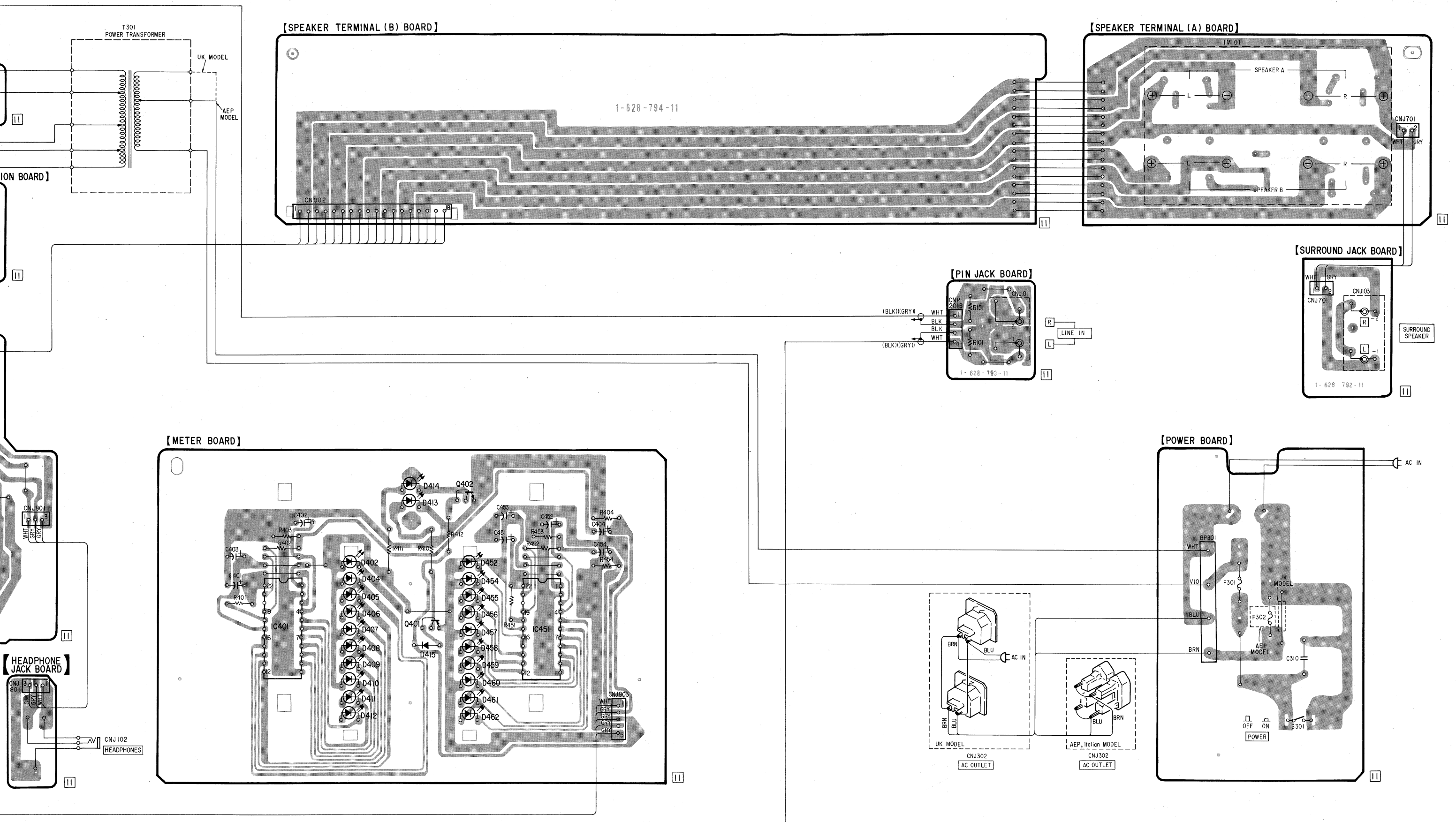
Ref. No.	Location
IC101	E-3
IC151	E-7
IC201	F-9
IC301	E-2
IC401	H-17
IC451	H-20
Q101	B-3
Q102	B-4
Q103	B-2
Q104	D-2
Q151	B-8
Q152	B-6
Q153	B-9
Q154	D-9
Q201	F-8
Q401	H-18
Q402	G-19
D101	D-2
D151	E-9
D152	F-9
D201	F-9
D202	H-9
D204	I-8
D210	I-8
D301	E-12
D302	F-12
D303	I-6
D304	I-7
D305	I-6
D306	I-7
D402	G-18
D404	H-18
D405	H-18
D406	H-18
D407	H-18
D408	H-18
D409	I-18
D410	I-18
D411	I-18
D412	I-18
D413	G-18
D414	G-18
D415	H-19
D452	G-19
D454	H-19
D455	H-19
D456	H-19
D457	H-19
D458	H-19
D459	I-19
D460	I-19
D461	I-19
D462	I-19

4-3. PRINTED WIRING BOARDS

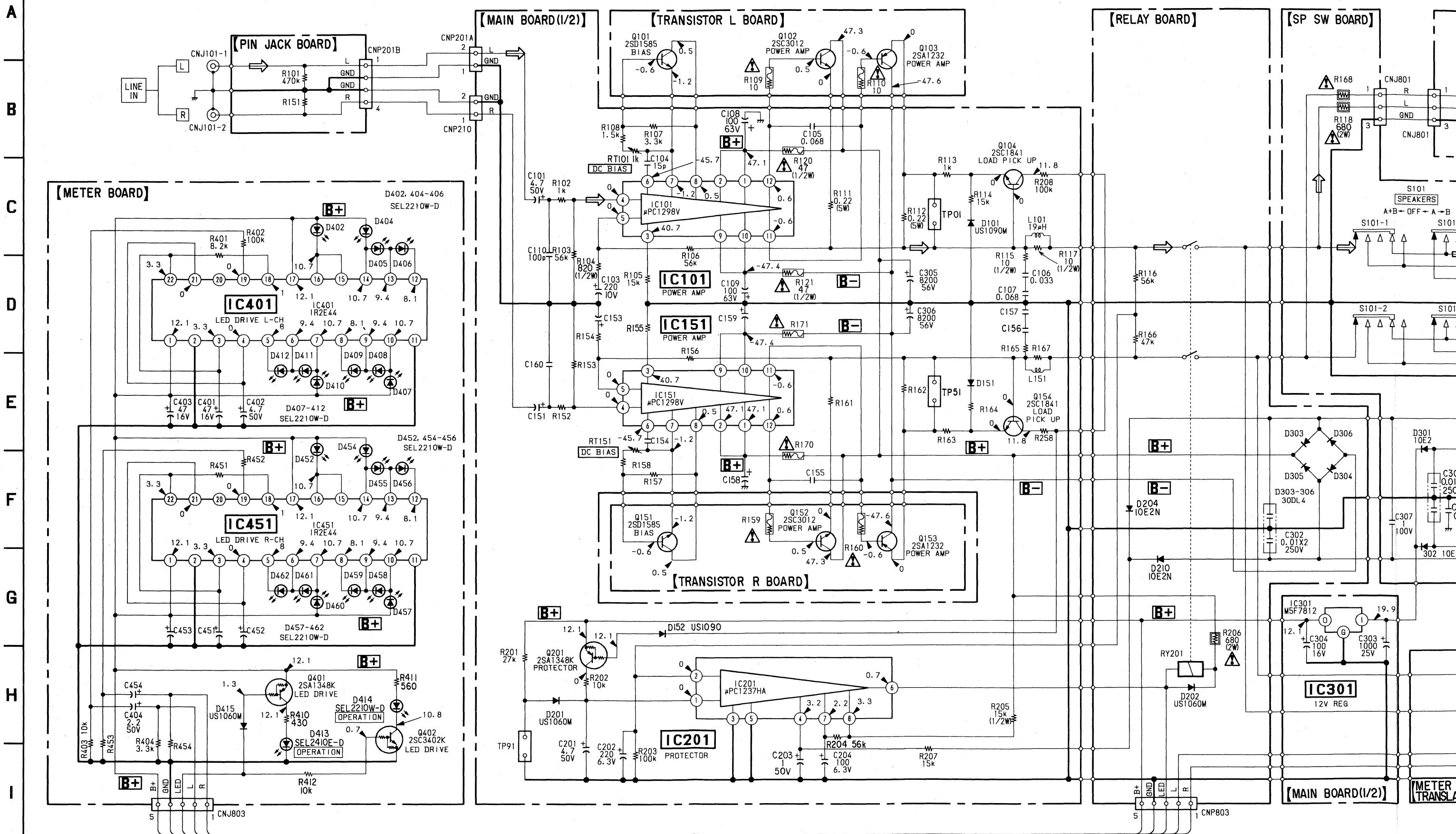
• Refer to page 6 Semiconductor Lead Layouts.

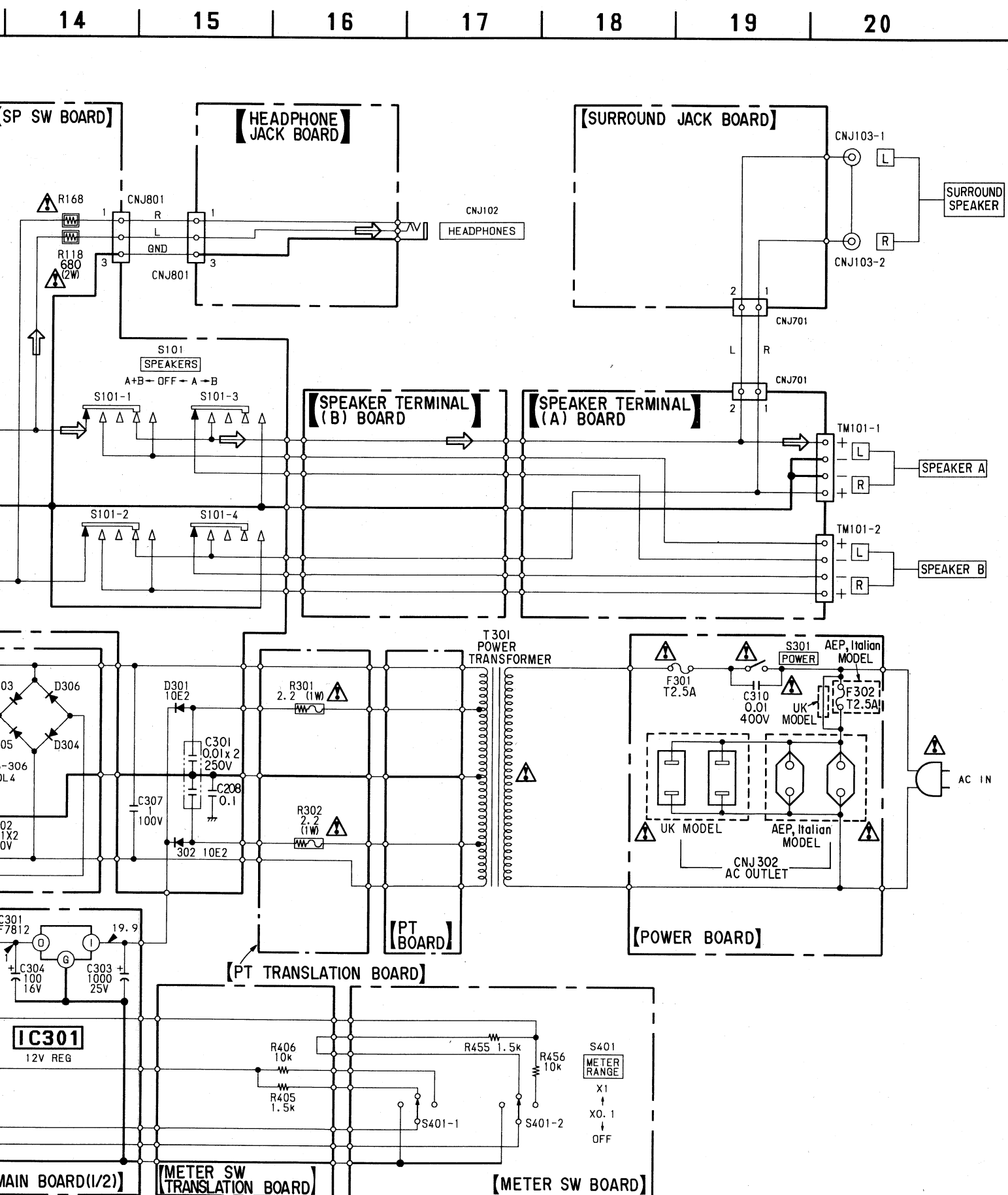


Note:
• —○—: parts extracted from the component side.

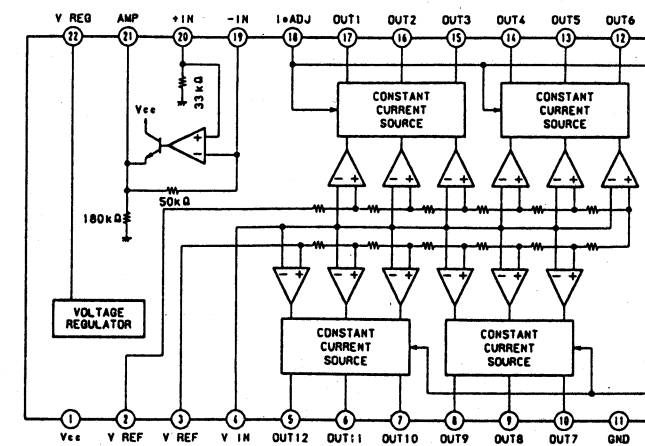


1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----





• IC BLOCK DIAGRAM



Note:

- All capacitors are in μF unless otherwise noted. pF: $\mu \mu F$
- 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}W$ or less unless otherwise specified.
- Components for right channel have same values as for left channel. Reference numbers are coded from
- : nonflammable resistor.
- : fusible resistor.
- : B+ Line
- : B- Line
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (input impedance 10M Ω).
- Voltage variations may be noted due to normal production tolerances.
- Signal path.
- : LINE



SECTION 5

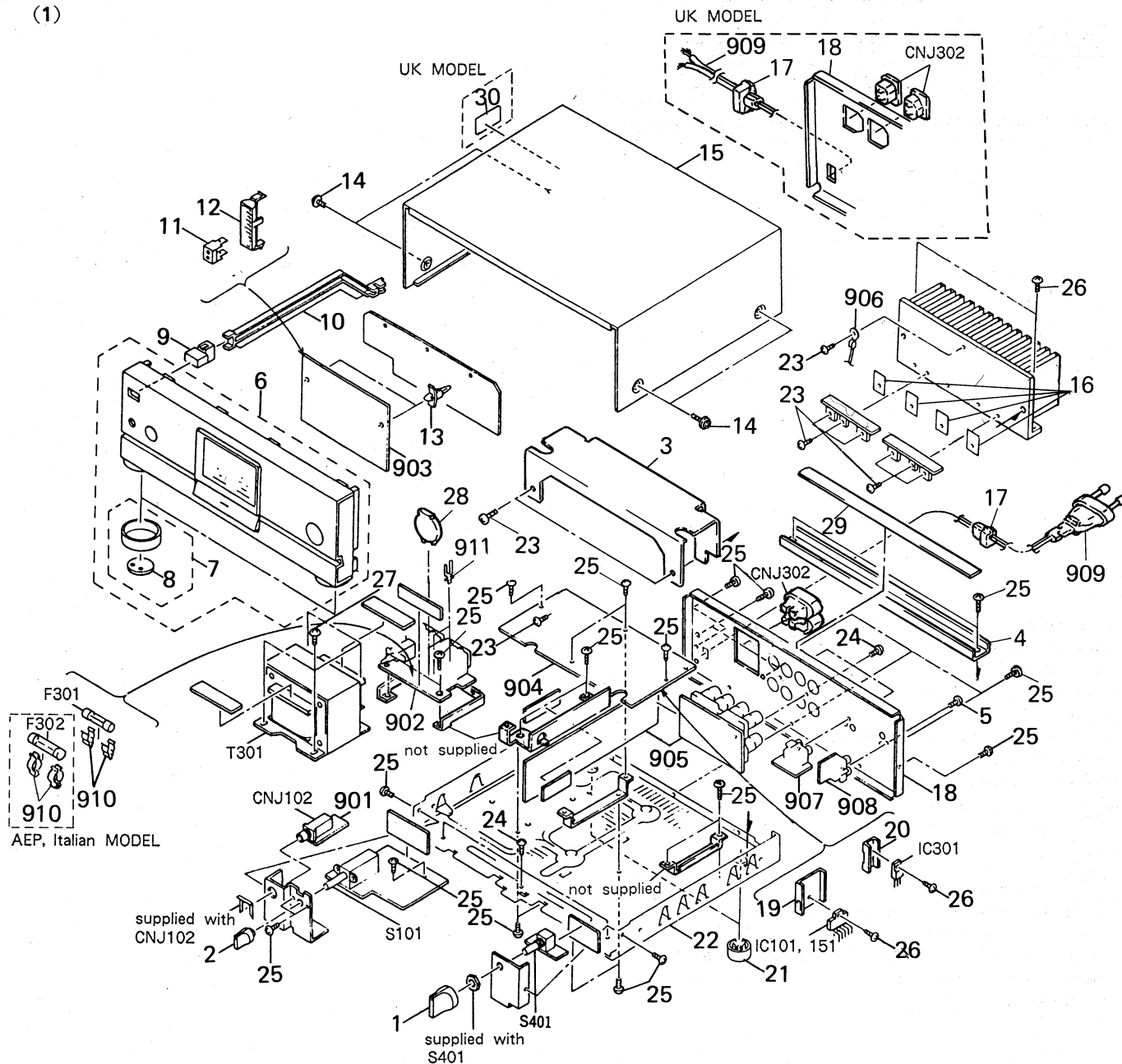
EXPLODED VIEW

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
Example:
(RED) ... KNOB, BALANCE (WHITE)

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	4-916-745-01	KNOB (DIA.21)(METER RANGE)		28	*4-875-455-31	COVER (DIA. 20), CAPACITOR	
2	4-908-097-21	KNOB (SPEAKERS)		29	9-911-815-01	CUSHION	
3	*4-930-819-01	PLATE, SHIELD		30	3-703-079-21	(UK)....LABEL, CAUTION (BACK)	
4	*4-928-458-01	REINFORCEMENT (CHASSIS)					
5	7-621-849-00	SCREW, TAPPING		901	*1-628-791-11	PC BOARD, H.P JACK	
				902	*1-631-124-11	PC BOARD, POWER	
6	X-4917-273-1	PANEL ASSY, FRONT		903	*1-628-788-11	PC BOARD, METER	
7	X-4917-252-1	PLATE (LEG) ASSY, ORNAMENTAL		904	*A-4388-805-A	MOUNTED PCB, MAIN	
8	4-928-401-01	FELT					
9	4-921-919-01	BUTTON (P)		905	*1-628-794-11	PC BOARD, SPEAKER TERMIAL	
				906	1-800-427-00	POSISTOR	
10	*4-928-448-01	JOINT		907	*1-628-792-11	PC BOARD, SURROUND JACK	
11	*4-928-444-01	HOLDER (S), LED		908	*1-628-793-11	PC BOARD, PIN JACK	
12	*4-928-450-01	HOLDER (L), LED					
13	*4-924-098-21	HOLDER, PC BOARD		909	A.1-555-750-00	(AEP,Italian)...CORD, POWER	
					A.1-556-035-00	(UK).....CORD, POWER	
14	3-704-366-01	SCREW (CASE) (M3X8)					
15	4-919-379-11	CASE		910	*1-533-213-31	HOLDER, FUSE	
16	4-911-232-01	SHEET, INSULATING		911	1-535-476-11	(AEP,Italian)...TERMINAL	
17	*3-703-244-00	BUSHING (2104), CORD		CNJ102	1-507-796-71	JACK (HEADPHONES)	
18	*4-930-815-11	(AEP).....PANEL, BACK		CNJ302A1	1-526-751-11	(UK).....OUTLET, AC	
	*4-930-815-21	(UK).....PANEL, BACK		CNJ302A1	1-526-794-11	(AEP,Italian)...OUTLET, AC	
	*4-930-815-31	(Italian)...PANEL, BACK					
19	*4-928-442-01	HEAT SINK (S)		F301	A.1-532-286-00	FUSE, TIME-LAG (T2.5A)	
20	*3-309-144-21	HEAT SINK		F302	A.1-532-286-00	(AEP,Italian)...FUSE, TIME-LAG (T2.5A)	
21	4-931-169-01	FOOT		IC101	8-759-109-06	IC UPC1298V	
22	*4-924-520-21	CHASSIS		IC151	8-759-109-06	IC UPC1298V	
				IC301	8-759-604-33	IC MSF7812	
23	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3		S101	1-570-366-11	SWITCH, ROTARY SLIDE (SPEAKERS)	
24	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		S401	1-571-801-11	SWITCH, ROTARY (METER RANGE)	
25	7-682-547-04	SCREW +BVTT 3X6 (S)					
26	7-682-548-04	SCREW +BVTT 3X8 (S)		T301	A.1-449-731-11	(UK).....TRANSFORMER, POWER	
27	7-682-560-04	SCREW +BVTT 4X6 (S)		T301	A.1-449-732-11	(AEP,Italian)...TRANSFORMER, POWER	

SECTION 6 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

MF: μ F, PF: μ F.

RESISTORS

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μ H

SEMICONDUCTORS

In each case, U: μ , for example:
UA....: μ A...., UPA....: μ PA....,
UPC....: μ PC, UPD....: μ PD....

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description
901	*1-628-791-11	PC BOARD, H.P JACK
902	*1-631-124-11	PC BOARD, POWER
903	*1-628-788-11	PC BOARD, METER
904	*A-4388-805-A	MOUNTED PCB, MAIN
905	*1-628-794-11	PC BOARD, SPEAKER TERMIAL
906	1-800-427-00	POSISTOR
907	*1-628-792-11	PC BOARD, SURROUND JACK
908	*1-628-793-11	PC BOARD, PIN JACK
909	Δ 1-555-750-00	(AEP,Italian)...CORD, POWER
	Δ 1-556-035-00	(UK).....CORD, POWER
910	*1-533-213-31	HOLDER, FUSE
911	1-535-476-11	(AEP,Italian)...TERMINAL
BP301	*1-535-141-00	BASE POST 22MM (10MM PITCH) 4P
C101	1-124-927-11	ELECT 4.7MF 20% 50V
C103	1-126-335-11	ELECT 220MF 20% 10V
C104	1-102-951-00	CERAMIC 15PF 5% 50V
C105	1-136-163-00	MYLAR 0.068MF 10% 50V
C106	1-136-159-00	MYLAR 0.033MF 10% 50V
C107	1-136-163-00	MYLAR 0.068MF 10% 50V
C108	1-124-572-11	ELECT 100MF 20% 63V
C109	1-124-572-11	ELECT 100MF 20% 63V
C110	1-102-973-00	CERAMIC 100PF 5% 50V
C151	1-124-927-11	ELECT 4.7MF 20% 50V
C153	1-126-335-11	ELECT 220MF 20% 10V
C154	1-102-951-00	CERAMIC 15PF 5% 50V
C155	1-136-163-00	MYLAR 0.068MF 10% 50V
C156	1-136-159-00	MYLAR 0.033MF 10% 50V
C157	1-136-163-00	MYLAR 0.068MF 10% 50V
C158	1-124-572-11	ELECT 100MF 20% 63V
C159	1-124-572-11	ELECT 100MF 20% 63V
C160	1-102-973-00	CERAMIC 100PF 5% 50V
C201	1-124-927-11	ELECT 4.7MF 20% 50V
C202	1-126-176-11	ELECT 220MF 20% 6.3V
C203	1-124-499-11	ELECT 1MF 20% 50V
C204	1-124-443-00	ELECT 100MF 20% 6.3V
C301	1-102-394-11	CERAMIC 0.01MF 250V
C302	1-102-394-11	CERAMIC 0.01MF 250V
C303	1-124-557-11	ELECT 1000MF 20% 25V
C304	1-126-101-11	ELECT 100MF 20% 16V
C305	1-125-556-11	ELECT 8200MF 20% 56V
C306	1-125-556-11	ELECT 8200MF 20% 56V
C307	1-130-789-00	FILM 1MF 10% 100V
C308	1-164-159-11	CERAMIC 0.1MF 50V

Ref.No.	Part No.	Description
C310	1-161-744-00	CERAMIC 0.01MF 400V
C401	1-124-589-11	ELECT 47MF 20% 16V
C402	1-126-163-11	ELECT 4.7MF 20% 50V
C403	1-124-589-11	ELECT 47MF 20% 16V
C404	1-124-925-11	ELECT 2.2MF 20% 50V
C451	1-124-589-11	ELECT 47MF 20% 16V
C452	1-126-163-11	ELECT 4.7MF 20% 50V
C453	1-124-589-11	ELECT 47MF 20% 16V
C454	1-124-925-11	ELECT 2.2MF 20% 50V
CN001	*1-562-370-00	CONNECTOR, BOARD TO BOARD 18P
CN002	*1-564-346-00	CONNECTOR, BOARD TO BOARD 18P
CNJ101	1-565-319-31	JACK, PIN 2P (LINE IN)
CNJ102	1-507-796-71	JACK (HEADPHONES)
CNJ103	1-565-319-31	JACK, PIN 2P (SURROUND SPEAKER)
CNJ302A	1-526-794-11	(AEP,Italian)...OUTLET, AC
CNJ302A	1-526-751-11	(UK).....OUTLET, AC
CNP201A	*1-564-505-11	PLUG, CONNECTOR 2P
CNP201B	*1-564-507-11	PLUG, CONNECTOR 4P
CNP210A	*1-564-505-11	PLUG, CONNECTOR 2P
CNP701	*1-564-505-11	PLUG, CONNECTOR 2P
CNP702	*1-564-507-11	PLUG, CONNECTOR 4P
CNP703	*1-564-507-11	PLUG, CONNECTOR 4P
CNP803	*1-564-339-00	PIN, CONNECTOR 5P
D101	8-719-815-85	DIODE 1SS1585
D151	8-719-815-85	DIODE 1SS1585
D152	8-719-815-85	DIODE 1SS1585
D201	8-719-912-20	DIODE 1SS120
D202	8-719-912-20	DIODE 1SS120
D204	8-719-200-77	DIODE 10E2N
D210	8-719-200-77	DIODE 10E2N
D301	8-719-200-77	DIODE 10E2N
D302	8-719-200-77	DIODE 10E2N
D303	8-719-230-34	DIODE 30DL4-FC
D304	8-719-230-34	DIODE 30DL4-FC
D305	8-719-230-34	DIODE 30DL4-FC
D306	8-719-230-34	DIODE 30DL4-FC
D402	8-719-900-19	DIODE SLR-34UW5
D404	8-719-900-19	DIODE SLR-34UW5
D405	8-719-900-19	DIODE SLR-34UW5
D406	8-719-900-19	DIODE SLR-34UW5
D407	8-719-900-19	DIODE SLR-34UW5
D408	8-719-900-19	DIODE SLR-34UW5
D409	8-719-900-19	DIODE SLR-34UW5
D410	8-719-900-19	DIODE SLR-34UW5

TA-V925NE

Ref.No.	Part No.	Description
D411	8-719-900-19	DIODE SLR-34UW5
D412	8-719-900-19	DIODE SLR-34UW5
D413	8-719-301-43	DIODE SEL2410EC
D414	8-719-900-19	DIODE SLR-34UW5
D415	8-719-912-20	DIODE 1SS120
D452	8-719-900-19	DIODE SLR-34UW5
D454	8-719-900-19	DIODE SLR-34UW5
D455	8-719-900-19	DIODE SLR-34UW5
D456	8-719-900-19	DIODE SLR-34UW5
D457	8-719-900-19	DIODE SLR-34UW5
D458	8-719-900-19	DIODE SLR-34UW5
D459	8-719-900-19	DIODE SLR-34UW5
D460	8-719-900-19	DIODE SLR-34UW5
D461	8-719-900-19	DIODE SLR-34UW5
D462	8-719-900-19	DIODE SLR-34UW5
F301	Δ 1-532-286-00	FUSE, TIME-LAG (T2.5A)
F302	Δ 1-532-286-00	(AEP,Italian)...FUSE, TIME-LAG (T2.5A)
IC101	8-759-109-06	IC UPC1298V
IC151	8-759-109-06	IC UPC1298V
IC201	8-759-111-68	IC UPC1237HA
IC301	8-759-604-33	IC M5F7812
IC401	8-759-979-52	IC IR2E44
IC451	8-759-979-52	IC IR2E44
L101	*1-420-872-00	COIL, AIR CORE 19UH
L151	*1-420-872-00	COIL, AIR CORE 19UH
Q101	8-729-107-26	TRANSISTOR 2SD1585
Q102	8-729-102-57	TRANSISTOR 2SC3012
Q103	8-729-102-47	TRANSISTOR 2SA1232
Q104	8-729-108-05	TRANSISTOR 2SA1841PA
Q151	8-729-107-26	TRANSISTOR 2SD1585
Q152	8-729-102-57	TRANSISTOR 2SC3012
Q153	8-729-102-47	TRANSISTOR 2SA1232
Q154	8-729-108-05	TRANSISTOR 2SA1841PA
Q201	8-729-806-10	TRANSISTOR 2SA1348
Q401	8-729-806-10	TRANSISTOR 2SA1348
Q402	8-729-806-28	TRANSISTOR 2SC3402
R101	1-247-895-00	CARBON 470K 5% 1/4W
R102	1-249-417-11	CARBON 1K 5% 1/4W
R103	1-249-438-11	CARBON 56K 5% 1/4W
R104	1-247-751-11	CARBON 820 5% 1/2W
R105	1-249-431-11	CARBON 15K 5% 1/4W
R106	1-249-493-11	CARBON 56K 5% 1/2W
R107	1-249-423-11	CARBON 3.3K 5% 1/4W
R108	1-249-419-11	CARBON 1.5K 5% 1/4W
R109	Δ 1-212-857-00	FUSIBLE 10 5% 1/4W F
R110	Δ 1-212-857-00	FUSIBLE 10 5% 1/4W F
R111	1-217-156-00	RES, METAL PLATE 0.22
R112	1-217-156-00	RES, METAL PLATE 0.22
R113	1-249-417-11	CARBON 1K 5% 1/4W
R114	1-249-431-11	CARBON 15K 5% 1/4W
R115	1-247-727-11	CARBON 10 5% 1/2W
R116	1-249-438-11	CARBON 56K 5% 1/4W
R117	1-247-727-11	CARBON 10 5% 1/2W
R118	Δ 1-215-891-11	METAL OXIDE 680 5% 2W F
R120	Δ 1-212-974-00	FUSIBLE 47 5% 1/2W F
R121	Δ 1-212-974-00	FUSIBLE 47 5% 1/2W F
R151	1-247-895-00	CARBON 470K 5% 1/4W
R152	1-249-417-11	CARBON 1K 5% 1/4W

Ref.No.	Part No.	Description
R153	1-249-438-11	CARBON 56K 5% 1/4W
R154	1-247-751-11	CARBON 820 5% 1/2W
R155	1-249-431-11	CARBON 15K 5% 1/4W
R156	1-249-493-11	CARBON 56K 5% 1/2W
R157	1-249-423-11	CARBON 3.3K 5% 1/4W
R158	1-249-419-11	CARBON 1.5K 5% 1/4W
R159	Δ 1-212-857-00	FUSIBLE 10 5% 1/4W F
R160	Δ 1-212-857-00	FUSIBLE 10 5% 1/4W F
R161	1-217-156-00	RES, METAL PLATE 0.22
R162	1-217-156-00	RES, METAL PLATE 0.22
R163	1-249-417-11	CARBON 1K 5% 1/4W
R164	1-249-431-11	CARBON 15K 5% 1/4W
R165	1-247-727-11	CARBON 10 5% 1/2W
R166	1-249-437-11	CARBON 47K 5% 1/4W
R167	1-247-727-11	CARBON 10 5% 1/2W
R168	Δ 1-215-891-11	METAL OXIDE 680 5% 2W F
R170	Δ 1-212-974-00	FUSIBLE 47 5% 1/2W F
R171	Δ 1-212-974-00	FUSIBLE 47 5% 1/2W F
R201	1-249-434-11	CARBON 27K 5% 1/4W
R202	1-249-429-11	CARBON 10K 5% 1/4W
R203	1-249-441-11	CARBON 100K 5% 1/4W
R204	1-249-438-11	CARBON 56K 5% 1/4W
R205	1-249-487-11	CARBON 15K 5% 1/2W
R206	Δ 1-215-891-11	METAL OXIDE 680 5% 2W F
R207	1-249-431-11	CARBON 15K 5% 1/4W
R208	1-249-441-11	CARBON 100K 5% 1/4W
R258	1-249-441-11	CARBON 100K 5% 1/4W
R301	Δ 1-217-473-00	FUSIBLE 2.2 5% 1W F
R302	Δ 1-217-473-00	FUSIBLE 2.2 5% 1W F
R401	1-249-428-11	CARBON 8.2K 5% 1/4W
R402	1-249-441-11	CARBON 100K 5% 1/4W
R403	1-249-429-11	CARBON 10K 5% 1/4W
R404	1-249-423-11	CARBON 3.3K 5% 1/4W
R405	1-249-419-11	CARBON 1.5K 5% 1/4W
R406	1-249-429-11	CARBON 10K 5% 1/4W
R410	1-247-822-11	CARBON 430 5% 1/4W
R411	1-249-414-11	CARBON 560 5% 1/4W
R412	1-249-429-11	CARBON 10K 5% 1/4W
R451	1-249-428-11	CARBON 8.2K 5% 1/4W
R452	1-249-441-11	CARBON 100K 5% 1/4W
R453	1-249-429-11	CARBON 10K 5% 1/4W
R454	1-249-423-11	CARBON 3.3K 5% 1/4W
R455	1-249-419-11	CARBON 1.5K 5% 1/4W
R456	1-249-429-11	CARBON 10K 5% 1/4W
RT101	1-237-456-11	RES, ADJ, CARBON 1K (DC BIAS L)
RT151	1-237-456-11	RES, ADJ, CARBON 1K (DC BIAS R)
RY201	1-515-501-00	RELAY
S101	1-570-366-11	SWITCH, ROTARY SLIDE (SPEAKERS)
S301	1-554-920-11	SWITCH, PUSH (AC POWER)(1 KEY)
S401	1-571-801-11	SWITCH, ROTARY (METER RANGE)
T301	Δ 1-449-732-11	(AEP,Italian)...TRANSFORMER, POWER
T301	Δ 1-449-731-11	(UK).....TRANSFORMER, POWER
TM101	1-537-193-11	TERMINAL BOARD (SP)(SPEAKER A/B)
TP01	*1-535-115-00	TERMINAL
TP51	*1-535-115-00	TERMINAL
TP91	*1-535-115-00	TERMINAL

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

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Audio Group

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